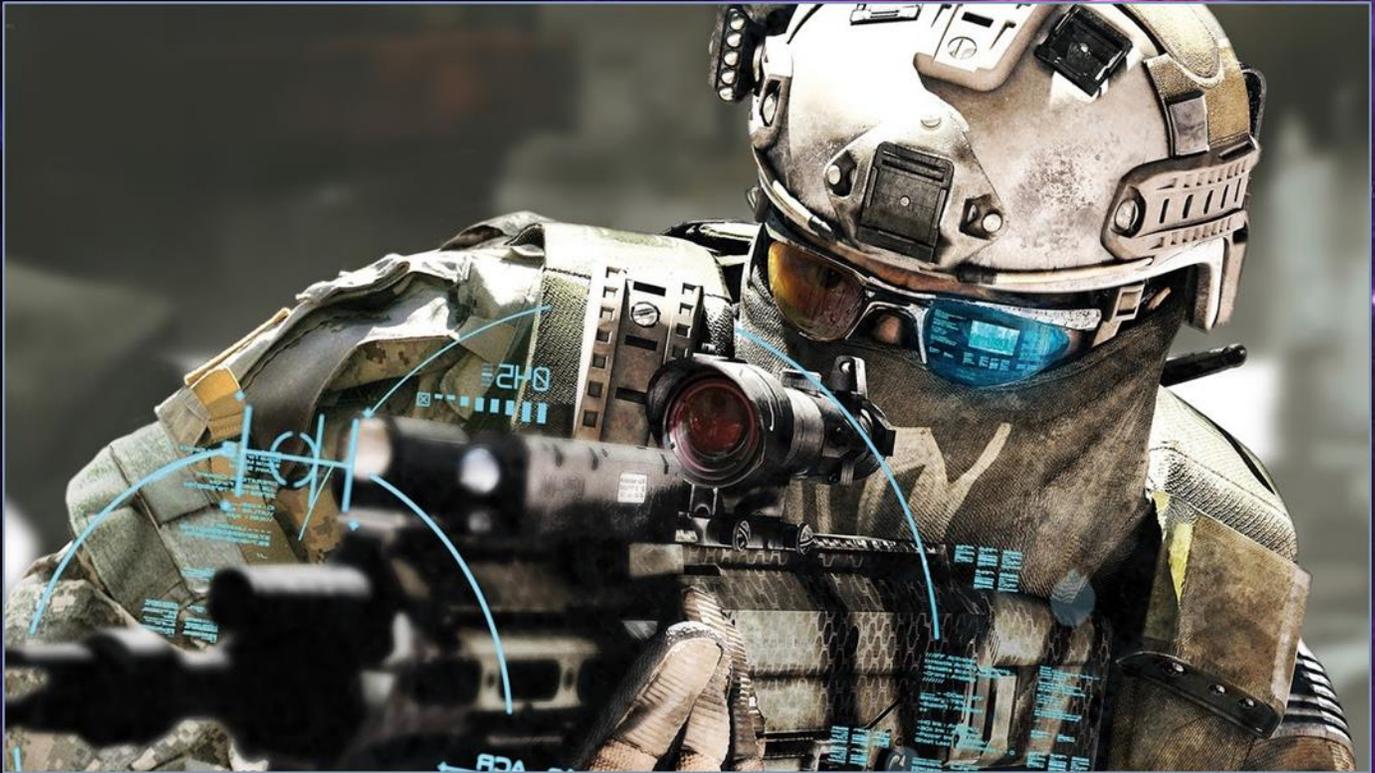




Dragon INNOVATION

NEWSLETTER

December 2021



This document provides information to XVIII Airborne Corps Soldiers and Civilians, across all units and installations, about the Corps' focus on building a culture of innovation.

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“Solving Soldiers’
problems everyday
using data as a strategy.”

– CW4 Brian Masters,
Project Ridgway



XVIII AIRBORNE CORPS DRAGON INNOVATION PROGRAM

National Security Innovation Network (NSIN): A community of problem solvers.

Have an idea to improve your unit, the XVIII Airborne Corps, or the Army?

Whether your idea solves a new problem or makes an old system more effective, we want to hear from you. Submit your ideas today!

Scan the QR code or click: <https://unum.nsin.us/xviii-airborne>

Culture



Processes



Ideas



Technology



Account Registration

Access the Dragon Innovation Program!

1. Scan the QR code.
2. Click the menu button.
3. Select 'become a member'.
4. Create an account with an email and password (no CAC required).
5. Click activation link sent to your email.
6. Sign in, fill in your info or skip.
7. Take a tour of the site or skip.
8. Start innovating!

INNOVATION ORIENTATION DAY WITH OUR UNIVERSITY PARTNERS

We continue to forge innovation relationships with top universities to form Soldier-Academic teams and implement tangible solutions fast.

On 23 November 2021, we hosted our six affiliated universities at Fort Bragg with our divisions and separate brigades in attendance. This gave us a chance to showcase our Dragon Innovation Program, Project Ridgway and our AI-enabled operations. More importantly, we set conditions for increasing Soldier access and collaboration by confirming the current strengths and future interests of each university.

If you have an idea that could benefit from university outreach, contact 1LT Nate Schnittger at nathan.e.schnittger.mil@army.mil.

Duke
Georgia Tech

MIDDLE
TENNESSEE
STATE UNIVERSITY

Syracuse University

THE UNC
SYSTEM



VANDERBILT
UNIVERSITY





EDUCATION PARTNERSHIP AGREEMENT WITH GEORGIA TECH UNIVERSITY



We have signed an Education Partnership Agreement (EPA) with the **Georgia Institute of Technology** giving us access to both **Georgia Tech University** and **Georgia Tech Research Institute**. Georgia Tech specializes in:

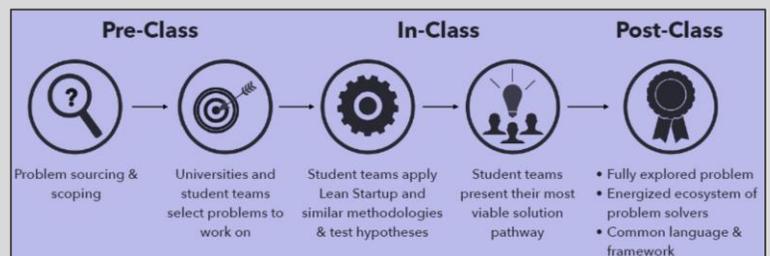
- AI-enabled initiatives in predictive maintenance, supply chain and logistics, sourcing and procurement.
- Advanced manufacturing techniques.
- Inboard/outboard sensing.
- Augmented reality/virtual reality training environments.
- Human machine interface.
- AI applications for national security.
- Trusted and resilient systems.
- Spectrum advantage.
- Multi-domain work from the Cloud to the edge.



If this sounds interesting, contact MAJ Dominic Pileri at dominic.m.pileri.mil@army.mil.

HACKING FOR DEFENSE (H4D)

H4D is a DoD program that brings talented engineering, business, and policy college students to work on important national security problems over the course of an academic semester.



Submit your problem here: <https://www.h4d.us/submit-a-problem>

Dragon Innovation Team Training (DITT)

What is DITT?

DITT is an eight-day virtual course partnered through NSIN to connect our Soldiers and Civilians with the nation's brightest academics. During DITT, participants learn creative thinking, problem solving, and solution development skills. Each DITT serial has a unique course problem to bring positive change. DITT makes us better by educating our people, solving problems, and driving an innovative culture across XVIII Airborne Corps.



DITT Serial 2201

30 November to 9 December 2021

We just completed DITT Serial 2201 to optimize the readiness of our vehicle fleets. Owing to the creative ideas from our participants, America's Contingency Corps will be ready when the call comes!



Want to attend DITT?



DITT Serial 2202
3-12 May 2021

Scan here!



MEET THE DRAGON INNOVATION TEAM



BG Bob Ritchie is the director of the XVIII Airborne Corps Innovation Program. An exchange officer from Canada, BG Ritchie is working to foster a culture of innovation across the Corps.

“We must innovate to effectively support our people and optimize our readiness. Our Soldiers and Civilians are fully empowered to innovate by introducing new thoughts, technologies, processes, and equipment.”

BG Robert T. Ritchie, Director Dragon Innovation Program, robert.t.ritchie12.fm@army.mil, (910) 396-9209



Mr. Jared Summers has served in executive positions in the civilian community and in DoD. Most recently, he served as the Chief Digital Officer for ExxonMobil driving global transformations in a Fortune 10 company.

“It is a great honor to serve in America's Contingency Corps where I hope to advance the Corps' technological and innovative efforts across all units and echelons.”

Mr. Jared Summers, XVIII Airborne Corps, Chief Technology Officer, jared.c.summers.civ@army.mil, (910) 396-1655



As the co-lead for Project Ridgway, COL Dan Kearney engages with Army Futures Command and the tech industry to bring the latest data analytics, machine learning, and AI technologies to our tactical units.

“The future is in data. If we don't build a data-literate force, we're sunk. If we want to compete and win, we've got to invest in data.”

COL Daniel P. Kearney, Co-Director Project Ridgway, daniel.p.kearney.mil@army.mil, (910) 432-6969



As the co-lead for Project Ridgway, COL Molly Solsbury engages with the entire ecosystem of data and technology experts within our Divisions and Separate Brigades.

“Start with People – Levering AI begins with a commitment to delivering for users, identifying and developing our most talented Soldiers, and re-shaping our organizations.”

COL Molly A. Solsbury, Co-Director Project Ridgway, melissa.a.solsbury.mil@army.mil, (910) 908-9722



MAJ Bethany Landeck, a Medical Service Corps Officer from Ohio, is an action officer for Project Ridgway. Bethany sees innovation as key to identifying requirements and informing modernization.

“Educating our formations on data literacy and fostering an organizational culture of innovation will cultivate agility and resiliency in the face of change.”

MAJ Bethany G. Landeck, Staff Officer, AI-Enabled Corps, bethany.g.landbeck.mil@army.mil, (910) 396-9039



MAJ Louis Crist is a Military Intelligence Officer from New Jersey. Lou serves as an action officer to support our culture of innovation and numerous chain of command initiatives throughout the Corps.

“Innovation isn't about technology, gimmicks, or spending a lot of money. It's about persistence, culture, and the ability to fight through organizational lethargy.”

MAJ Louis J. Crist, Chain of Command Entries on CAC-Enabled Site, louis.crist6.mil@army.mil, (910) 570-0455



1LT Nate Schnittger, a Missouri native, is responsible for managing and tracking the Dragon Innovation Program on our National Security Innovation Network (NSIN) Portal.

“There are Soldiers all across Corps with ideas to improve how we do things. I see the NSIN Portal as a way for those Soldiers to speak up and be heard. Anyone of any rank can submit an idea; any idea can be heard.”

1LT Nate Schnittger, NSIN Portal, Nathan.e.schnittger.mil@army.mil, (910) 570-0458

MEET THE PROJECT RIDGWAY TEAM

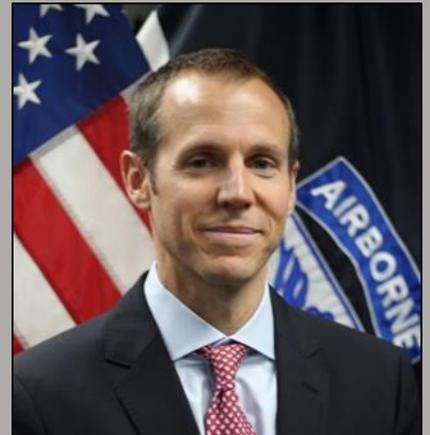
The eight member Project Ridgway team, stationed across XVIII Airborne Corps installations, coordinates with Corps units to develop innovative solutions to the problems we face.



COL Daniel P. Kearney
XVIII Airborne Corps



COL Molly A. Solsbury
XVIII Airborne Corps



Mr. Jared Summers
XVIII Airborne Corps



1LT Chad H. Naylor
XVIII Airborne Corps



CW4 Brian P. Masters
18th Field Artillery Brigade



CPT David K. Moore
XVIII Airborne Corps



SSG Matthew R. Harp
82nd Airborne Division



SPC Morian D. Senador
44th Medical Brigade



SPC Yeboah P. Ofori
7th Transportation Brigade



Thoughts from the XVIII Airborne Corps Chief Technology Officer, Mr. Jared Summers

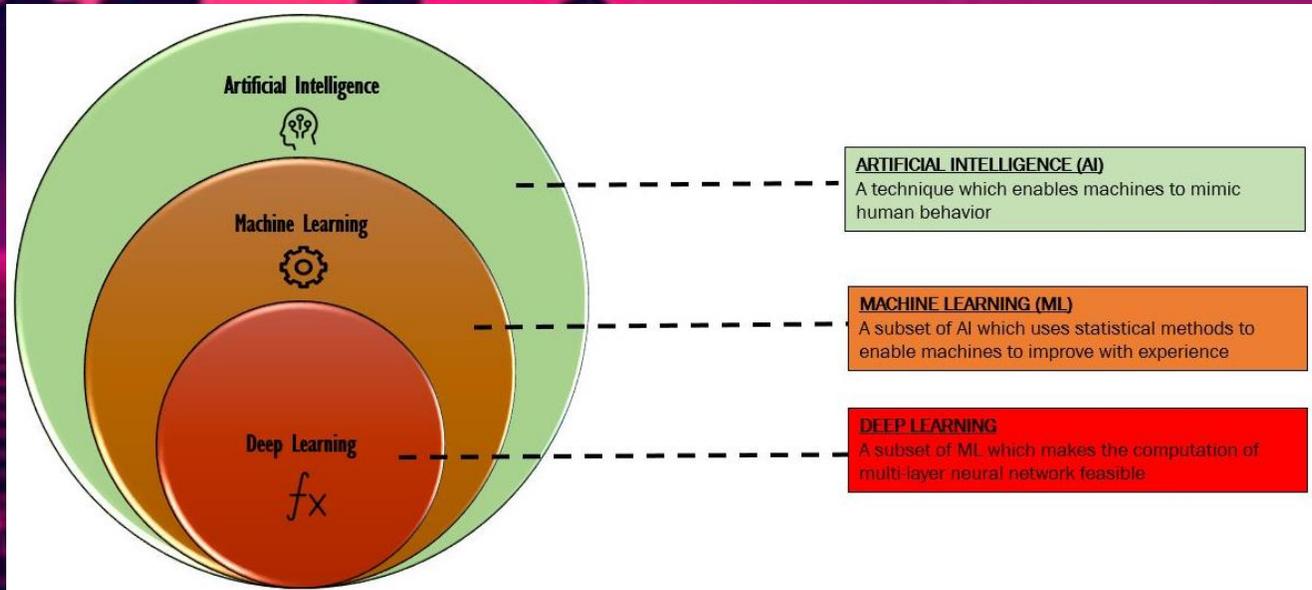
Happy Holidays! Your Chief Technology Officer here, sharing some thoughts on innovation.

We hear a lot about AI, so I thought it would be beneficial if we grounded around a base line, which includes a definition taken from the National Counterintelligence and Security Center:

‘AI is the demonstration of cognition and creative problem solving by machines rather than humans or animals, ranging from narrow AI, designed to solve specific problems, to Artificial General Intelligence, a system that in the future may match or exceed a human being’s understanding and learning capacity.’

In other words, AI is the ability of machines to perform tasks that normally require human intelligence: recognizing patterns, learning from experience, drawing conclusions, making predictions, or taking actions.

I often hear individuals use AI and Machine Learning (ML) as synonyms. Not all AI is ML as ML is a subset of AI. The differences are important: what many people call AI is not truly AI – it is nothing more than deterministic algorithms or formulas running in the background, think MS Excel. The graphic below depicts the relationship between AI, ML and deep learning. The amount of data and processing power required as you move down is exponential.



If you want more information on data training opportunities or you want to work on the Dragon Cloud, scan here!





Project Ridgway Update: XVIII Airborne Corps in the Cloud

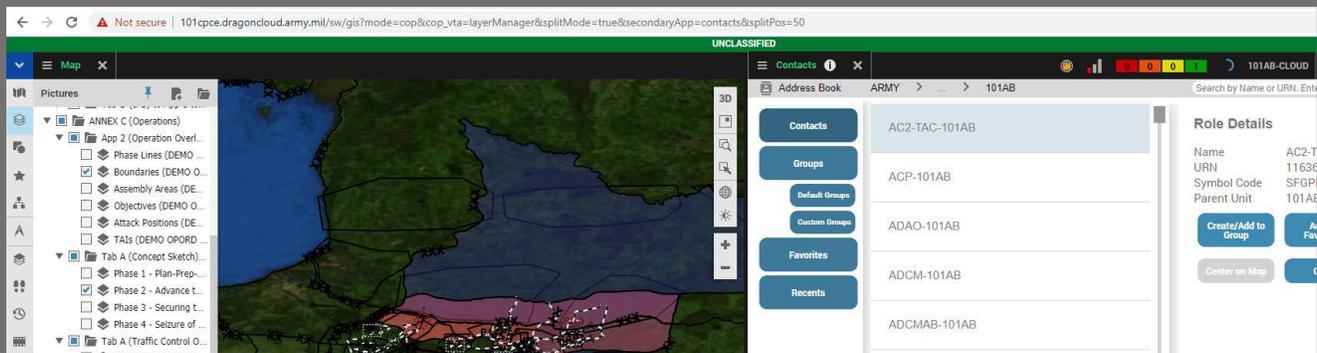


The Dragon Cloud is a Project Ridgway effort supported by the 101st Airborne Division (Air Assault) in cooperation with the 82nd Airborne Division. The Eagle team has worked diligently with all Army mission partners, including the Enterprise Cloud Management Agency (ECMA) and Cloud Army (cARMY), to establish the first enduring tactical cloud presence for the conventional Army.

The environment, which is being built by Soldiers by re-hosting Project Manager Mission Command software, is providing invaluable feedback from a cloud architect's perspective to aid in future software development efforts.

Our initial Dragon Cloud in the Impact Level 5 (IL5) unclassified environment hosted a complete Command Post Computing Environment (CPCE) server suite that was globally accessible for full services from any Army NIPR computer.

The next phase of Dragon Cloud, which is already underway, is to establish a fully operational IL6 classified Dragon Cloud environment that hosts a full gambit of Mission Command Services such as CPCE, CPOF, DDS, AFATDS, and JADOCS.



For the full Dragon Cloud article which was published in the November 2021 issue of the Army Communicator Magazine please visit: <https://cybercoe.army.mil/AC/>

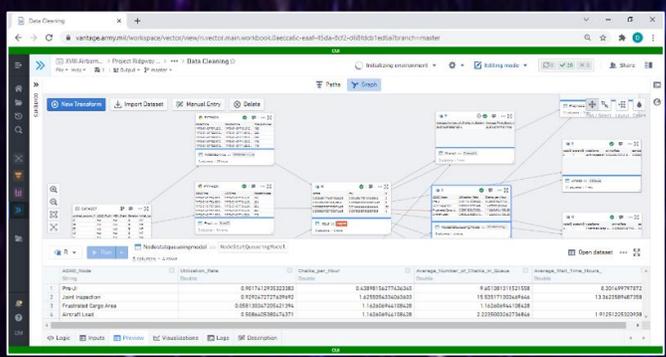
Project Ridgway Update: Outload Node Tool

To address outload inefficiencies identified during the Afghanistan evacuation mission, the Project Ridgway team developed an Outload Node Tool. Currently in Beta Version, this tool allows leaders and planners to utilize queuing theory simulation to both predict outload joint inspection (JI) processing given historical data and track real-time performance.

Command and control during outload is a constant battle for visibility of assets requiring the use of many sensors and rapid digestion of reports. Probability and statistics supplement the lack of sensors to predict the most likely outcome. In this case, we can predict JI throughput, the average length of JI queues, percentage utilization of nodes, and average JI wait times. This analysis can also be leveraged to conduct focused after action reviews.



The server backend constructed using Palantir's Code Workbook tool on Vantage.



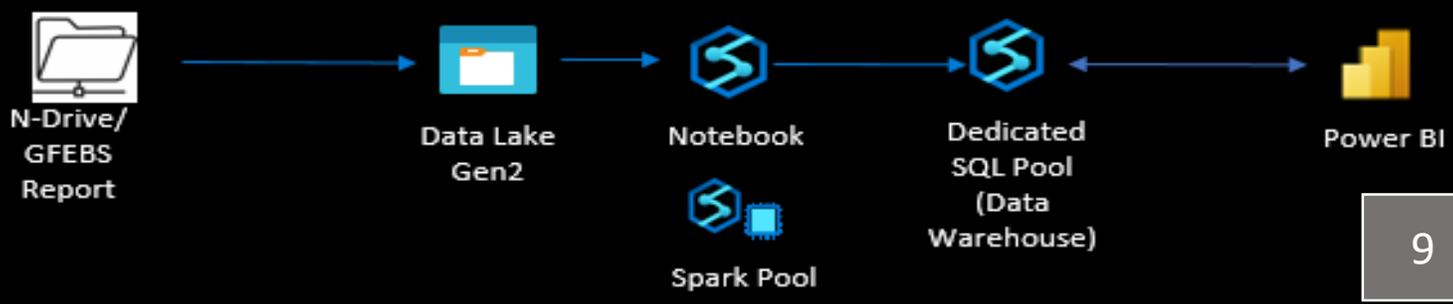
Dragon Data Garage for ERPs: (GFEBs/GCSS-A)

GFEBs: General Fund Enterprise Business System / GCSS-A: Global Combat Support System – Army

What is it? An XVIII Airborne Corps tool that takes a routine process and automates the generation of business intelligence (BI) reports.

What next? Expand our current capabilities, which are limited to old 'static' data, to incorporate trend analysis and predictive analytics. Provide a data warehouse and BI reports for down trace Corps units to access. Expand to Enterprise Resource Planning (ERPs) across XVIII Airborne Corps to minimize the data processing at each echelon.

Why is this important? Finance and logistics units across Corps are pulling the same resource data and generating customizable reports in MS PowerPoint with stagnant information by the time it's presented for decision. This tool will enable leaders to stop building PowerPoint and start building readiness.





31D



As part of our educational partnership development, 31D hosted Georgia Tech and GTRI faculty to FSGA on 09 SEP 21. The purpose of this visit was to introduce the GA team



to the division, orient them to our equipment and initial problem sets. The team was able to see an M1A2 and M109 and talk to the crews about the unique challenges for each of these vehicles. We held a forum with CO and BN XO's from 3-69 AR to discuss maintenance and logistics problem sets. By the end, the Georgia Tech team had a clear understanding of 31D and how both organizations could mutually benefit from a future partnership.

Division Innovation Team

Primary: MAJ Dominic Pileri
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Deputy: CPT Ben McFarlin
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10th MTN DIV



1BCT recently implemented the Leader Engagement Tool in all barracks within their footprint to increase leader presence and promote a positive environment.



4-31 Infantry just completed a year-long program focused on wearable health data using Oura rings and watches to measure sleep and stress indicators for their Soldiers during high OPTEMPO periods. Data will be shared across the 10th MTN DIV.



Division Innovation Team

Primary: MAJ Mike Fitzgerald
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Deputy: MAJ Marydell Westman
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82nd ABN DIV



On Fort Bragg's Ardennes Street, we've sped up broadcast running cadence to 180 BPM by an Innovative NCO within our formation to promote optimal running form. Implementing this simple idea is a great example of how anyone in the 82nd can help us transform for the better, so keep sending us your ideas!

Four Paratroopers recently graduated from the H4X Lean Acquisition Innovation course provided by NC State. They learned critical skills for design thinking and solution development to complex problems. Be on the lookout for future opportunities from the AA Innovation Team!



Division Innovation Team

Primary: CPT David Matthews
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Deputy: 1LT Christopher Clarkin
christopher.r.clarkin.mil@army.mil



101st ABN DIV (AASLT)



The 101st is proud to officially open the EagleWerx Applied Tactical Innovation Center (ATIC) at FCKY on 07 DEC 21. The Grand Opening event will highlight Soldier projects and educational opportunities, to include H4X: Lean Acquisition Innovation course. Eight Screaming Eagle Soldiers participated in the H4X course last month, with the support of both NC State and DEVCOM. In the course, these Soldiers learned entrepreneurial methods and applied them to develop evidence-based requirements for air assault planning tools and EW sensor capabilities. Additionally, the EagleWerx team facilitated two design thinking workshops that taught 46 Soldiers design thinking exercises.



Division Innovation Team

Primary: MAJ Benjie Hall
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DRAGON'S LAIR EPISODE 6

6 DECEMBER 2021



CPT Obakai Grandisson of the USMC is presenting his concept for a CAC-enabled website called "Turnover.mil" which allows leaders from across the DoD to share and store digital products for their unit.

SFC Keenan Millay, SSG Carter Casey, and SPC Jonathan King from the Army designed a harness restraint system that bolts to the M88 to prevent gunner and troop commander from being thrown from the vehicle.

WO1 Jay Liew, USAR, designed a web-app that matches Soldiers with a therapist whose experience fits the service member's needs, facilitating expedient specialist access and a broader range of treatment options.

LCDR Daniel Walker, USN, proposed the use of augmented reality in the bridge of a naval vessel to enhance watchstander's performance to conduct complex maritime maneuvers. This idea has application for the USA.

2LT Christian Lance Relleve, USAR, created an AI program designed with an algorithm primer used to predict the interior floor plans of structures using AI and ML, aggregated by data contributed by infrastructure SMEs.

1LT Justin O'Brien, USAF, created a liquid cooling plate carrier system that employs a commercial off the shelf bladder and an active cooling system to decrease temperatures in the plate carrier by up to 30 degrees.

1LT Chad Naylor from the Army designed an AI program which searches and extracts data from regulations and publications without a need for verbatim word-for-word entries.

[US Department of Defense: Army's 'Dragon's Lair' Opens to All Military Services - MIT Innovation Initiative](#)
For more about Dragon's Lair 6 in the news!

Dragon's Lair – “Where Are They Now”?

DL3 Update: PVS-14 GEN 3 Holster Case

Designed from scratch by MSG David Taylor of the 101st ABN DIV (Air Assault), the PVS-14 GEN 3 holster functions as a hard case for storing night vision. Compared to the issued Army storage pouch, this PVS-14 holster case is rugged, light weight, low profile, and easily fits in a Soldier's load bearing vest.

MSG Taylor also developed the associated 3D printer files for the holster, empowering units with 3D printers to print the holster. While a commercial hard case holster cost about \$50 each, a company of 100 Soldiers can be fitted with the GEN 3 Holster for \$380 at a cost of \$3.80 each. MSG Taylor expects to develop a protective cover by January 2022.

The 3D printer files for the PVS-14 GEN 3 Holster were submitted to DEVCOM for addition to the Additive Manufacturing Digital Thread (AM DT) database. As of December 2021, the printer files are pending evaluation by the Combat Capabilities Development Command (C5ISR) Center. Once approved and uploaded to the AM DT, units with 3D printer capability can begin production.



DL2 Update: Army Photo History App

SFC Ashley Savage, a public affairs officer, developed the idea while serving in 16th Military Police Brigade.

To document and preserve the history of that brigade, she solicited images from veterans groups. She soon received digital images from veterans which she placed on an external hard drive. After the idea gained momentum, she began receiving shoeboxes of photographs from sons and daughters of MPs.

To manage all the content, SFC Savage developed a system to scan, upload, and categorize thousands of photos quickly to locate and identify images of a specific Soldier, unit, event, operation, or time.

To implement her idea, the Corps Public Affairs Office established a 10-year service contract for a mobile app using the same technology as Photobucket, the popular image hosting website.

The Army Photo History App will be accessible on civilian systems, Android, or iPhone and will not require a Common Access Card (CAC). The site will also allow direct upload of images scanned or photographed with an iPhone or Android hosting the app.

DRAGON INNOVATION IN THE NEWS



Over the past two months, multiple defense industry news outlets have reported on the Dragon Innovation Program; and in particular, Scarlet Dragon (SD) IV in early October.

The strength of the SD program is our joint partnerships. SD IV, the fourth iteration of our quarterly AI-enabled surveillance and targeting exercise, incorporated all six US military services and employed the latest advances in AI-augmented targeting and machine-to-machine communications. SD is ultimately about using data as a strategic asset to achieve decision dominance in Large Scale Combat Operations.

The SD series, which continues with SD V in late February and early March 2022, leverages today's tech now to increase warfighting capability with our joint partners.

ArmyTimes



Army's 'Scarlet Dragon' uses AI with Navy, Air Force and Marine assets to rapidly find, ID and destroy targets

LAND WARFARE, SPACE

Army, NRO Pioneer Direct Sat Imagery Downlink In 'Scarlet Dragon'

The ability to directly access remote sensing satellite data for targeting has long been a Holy Grail for the Army.

By **THERESA HITCHENS** on October 11, 2021 at 3:30 PM



Defense One

THREATS POLICY BUSINESS SCIENCE & TECH SERVICES

SCIENCE & TECH

How Well Can AI Pick Targets From Satellite Photos? Army Test Aims to Find Out

The Scarlet Dragon exercise is evaluating ways the service might put new tools to use in the very near term.



BY **PATRICK TUCKER**
TECHNOLOGY EDITOR

OCTOBER 6, 2021

Two live GBU-32 bombs... artificial-intelligence... might soon be used...

The F-35 strikes are... Scarlet Dragon exercise... data streams can spe... will be run by operato...

The exercise uses the... flagship AI-for-targeti...

feeds from drones, the Army effort applies that same technology to satellite



About Intara Capabilities

12 OCTOBER 2021

AUSA 2021: US Army's 'Scarlet Dragon' project aims to use AI, satellites for targeting

by Daniel Wasserbly



“New technology is important. New thinking is more important.”
– Dr. Bruce Blessing